



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

SHIMIZU et al.

Serial No. 09/722,664

Filed: November 28, 2000

For: CONTROLLER INTERFACE FOR A GRAPHICS
SYSTEM

Atty. Ref.: 723-969

Group: 3713

Examiner: S. Jones

* * * * *

May 22, 2003

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Under 37 C.F.R. §§ 1.56 and 1.97, the applicant directs the attention of the Patent and Trademark Office to the items listed on the attached forms PTO-1449. These items were cited in copending commonly-assigned patent applications as indicated in the appendix and not yet of record in this case.¹ The Examiner is requested to cite and consider these items in this case.

Applicant is attaching copies of all items other than U.S. patents. The U.S. patents are readily available to the Examiner; applicant will submit a copy upon request.

Should the examiner need anything further to consider these items, please contact the undersigned at the telephone number listed below.

Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may

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not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

In the event a first Office Action has already been mailed, please treat this paper as a submission under 37 C.F.R. § 1.97(c) and charge Deposit Account No. 14-1140 for the fee required by 37 C.F.R. § 1.17(p). The U.S. Patent and Trademark Office is authorized to charge any fee which was asserted to have been filed or which should have been filed and to credit any overpayment, to that same Deposit Account No. 14-1140.

Respectfully submitted,

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¹ The identification of the co-pending U.S. Patent Applications in the appendix is not to be construed as a waiver of secrecy as to those applications now or upon issuance of this application as a patent.

APPENDIX

The items cited on the attached form PTO-1449 are of record in the co-pending commonly-assigned patent applications as indicated below:

I. Application No. 09/465,754 filed December 17, 1999 (att. dkt. no. 723-799)
entitled "Vertex Cache For 3D Computer Graphics":

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| 4,812,988 | Duthuit et al. |
| 4,829,452 | Kang et al. |
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| 5,086,495 | Gray et al. |
| 5,163,126 | Einkauf et al. |
| 5,179,638 | Dawson et al. |
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| 5,754,191 | Mills et al. |
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| 5,940,089 | Dilliplane |
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White paper, Rogers, Douglas H., "Optimizing Direct3D for the GeForce 256" (1/3/2000)

Hook, Brian, "An Incomplete Guide to Programming DirectDraw and Direct3D Immediate Mode (Release 0.46)," printed from web site: www.wksoftware.com, 42 pages

Thompson, Tom, "Must-See 3-D Engines," BYTE MAGAZINE, printed from web site www.byte.com, 10 pages (June 1996)

Thompson, Nigel, "Rendering with Immediate Mode," Microsoft Interactive Developer Column: Fun and Games, printed from web site msdn.microsoft.com, 8 pages (March 97)

"HOWTO: Animate Textures in Direct3D Immediate Mode," printed from web site support.microsoft.com, 3 pages (last reviewed 12/15/2000)

INFO: Rendering a Triangle Using an Execute Buffer," printed from web site support.microsoft.com, 6 pages (last reviewed 10/20/2000)

U.S. application Serial No. 09/337,293, filed 6/21/1999, "Multi-Format Vertex Data Processing Apparatus and Method

Datasheet, SGS-Thomson Microelectronics, nVIDIA™, RIVA 128™ 128-Bit 3D Multimedia Accelerator (10/1997)

Product Presentation, "RIVA128™ Leadership 3D Acceleration," 2 pages

Hoppe, Hugues, "Optimization of Mesh Locality for Transparent Vertex Caching," PROCEEDINGS OF SIGGRAPH, pages 269-276 (August 8-13, 1999)

II. Application No. 09/726,223 filed November 28, 2000 (atty. dkt. no. 723-751)
entitled "Z Value Clamping In Near-Z Range To Maximize Precision Of Visually
Important Z Components And To Avoid Near-Z Clipping In A Graphics
Rendering System":

4,888,712 BARKANS et al.
4,907,174 PRIEM
5,819,017 Akeley et al.
5,856,829 GRAY, III et al.
5,923,332 IZAWA
5,926,182 MENON et al.
5,982,376 ABE et al.
5,986,659 GALLERY et al.
6,046,746 DEERING
6,052,129 FOWLER et al.
6,144,387 LIU et al.
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6,285,779 Lapidous et al.

III. Application No. 09/722,419 filed November 28, 2000 (atty. dkt. no. 723-958)
entitled "Graphics Pipeline Token Synchronization":

4,989,138 Radochonski
5,345,541 Kelley et al
5,467,459 Alexander et al.
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5,835,792 Wise et al.
5,872,902 Kuchkuda et al.
5,982,390 Stoneking et al.
6,046,752 Kirkland et al.
6,252,610 Hussain
6,476,808 Kuo et al.

IV. Application No. 09/722,382 filed November 28, 2000 (atty. dkt. no. 723-961)
entitled "Method And Apparatus For Direct and Indirect Texture Processing In A
Graphics System":

4,692,880 MERZ et al.

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| 5,987,567 | RIVARD et al. |
| 5,999,198 | HORAN et al. |
| 6,002,407 | FADDEN |
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| 6,046,747 | SAUNDERS et al. |
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V. Application No. 09/722,367 filed November 28, 2000 (atty. dkt. no. 723-968)
entitled "Recirculating Shade Tree Blender For A Graphics System":

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| 5,278,948 | Luken, Jr. |
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| 5,867,166 | Myhrvold et al. |
| 5,949,428 | Toelle et al. |
| 5,999,189 | Kajiya et al. |
| 6,016,151 | Lin |
| 6,043,821 | Sprague et al. |
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User's Manual," Pixar,

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web site (2000)

VI. Application No. 09/726,218 filed November 28, 2000 (atty. dkt. no. 723-960)
entitled "Method And Apparatus For Efficient Generation Of Texture Coordinate
Displacements For Implementing Emboss-Style Bump Mapping In A Graphics
Rendering System":

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| 5,880,736 | PEERCY et al. |
| 5,808,619 | CHOI et al. |
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VII. Application No. 09/722,381 filed November 28, 2000 (atty. dkt. no. 723-962) entitled "Method And Apparatus For Environment-Mapped Bump-Mapping In A Graphics System":

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4,615,013 YAN et al.
5,544,292 WINSER
5,563,989 BILLYARD
5,809,219 PEARCE et al.
5,870,102 TAROLLI et al.
5,923,334 LUKEN
5,956,043 JENSEN
6,049,337 VAN OVERVELD
6,052,127 VASWANI et al.
6,078,333 WITTIG et al.
6,191,794 PRIEM et al.

VIII. Application No. 09/726,216 filed November 28, 2000 (atty. dkt. no. 723-967) entitled "Achromatic Lighting in a Graphics System and Method":

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5,016,183 Shyong
5,097,427 Lathrop et al.
5,361,386 Watkins et al.

5,467,438 Nishio et al.
5,473,736 Young
5,495,563 Winsor, Paul A.
5,504,499 Horie et al.
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5,566,285 Okada
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5,687,304 Kiss, Kenneth W.
5,740,343 Tarolli et al.
5,943,058 Nagy
5,956,042 Tucker et al.
6,023,261 Ugajin
6,232,981 Gossett, Carroll Philip
6,417,858 Bosch et al.

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IX. Application No. 09/726,226 filed November 28, 2000 (atty. dkt. no. 723-964) entitled "Method And Apparatus For Anti-Aliasing In A Graphics System":

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5,394,516 WINSER
5,600,763 GREENE et al.
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5,859,645 LATHAM
5,877,771 DREBIN et al.
5,943,060 COSMAN et al.
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X. Application No. 09/722,380 filed November 28, 2000 (atty. dkt. no. 723-957)
entitled "Graphics System With Embedded Frame Buffer Having Re-configurable
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XI. Application No. 09/585,329 filed June 2, 2000 entitled "Variable Bit Field Color
Encoding" (atty. dkt. no. 723-749):

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<http://toolbox.sgi.com/TasteOfDT/d...penGL/advanced98/notes/node41.html>, June
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<http://www.sgi.com/software/opengl/advanced98/notes/node146.html>

10.3 Sorting, <http://www.sgi.com/software/opengl/advanced98/notes/node147.html>

10.4 Using the Alpha Function,
<http://www.sgi.com/software/opengl/advanced98/notes/node148.html>

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A Modified A-buffer Algorithm," Computer Graphics Proceedings, Annual
Conference Series, 1997, pp 307-316

XII. Application No. 09/726,212 filed November 28, 2000 (atty. dkt. no. 723-956)
entitled "Method And Apparatus For Dynamically Reconfiguring The Order Of
Hidden Surface Processing Based On Rendering Mode":

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XIII. Application No. 09/726,212 filed November 28, 2000 (atty. dkt. no. 723-973)
entitled "Method And Apparatus For Providing Non-Photorealistic Cartoon
Outlining Within A Graphics System":

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5,684,941 Dye
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XIV. Application No. 09/726,225 filed November 28, 2000 (atty. dkt. no. 723-954)
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Graphics System":

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| 5,363,475 | BAKER et al. |
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| 5,432,895 | MYERS |
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| 5,724,561 | TAROLLI et al. |
| 5,977,984 | OMORI |
| 5,990,903 | DONOVAN |
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XVII. Application No. 09/723,336 filed November 28, 2000 entitled "Application Program Interface for a Graphics System" (atty. dkt. no. 723-976):

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| 5,995,121 | Alcokrn et al |
| 6,052,133 | Kang |
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Frame Buffer And Main Memory":

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| 4,817,175 | TENENBAUM et al. |
| 5,062,057 | BLACKEN et al. |
| 5,204,944 | WOLBERG et al. |
| 5,315,692 | HANSEN et al. |
| 5,461,712 | CHELSTOWSKI et al. |
| 5,506,604 | NALLY et al. |
| 5,608,864 | BINDLISH et al. |
| 5,644,364 | KURTZE et al. |
| 5,691,746 | SHYU |
| 5,801,711 | KOSS et al. |
| 5,808,630 | PANNELL |
| 5,815,165 | BLIXT |
| 5,828,383 | MAY et al. |
| 5,877,741 | CHEE et al. |
| 5,909,225 | SCHINNERER et al. |
| 5,912,676 | MALLADI et al. |
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| 6,020,931 | BILBREY et al. |
| 6,040,843 | MONROE et al. |
| 6,043,804 | GREENE |
| 6,067,098 | DYE |
| 6,097,435 | STANGER et al. |
| 6,097,437 | HWANG |
| 6,115,047 | DEERING |

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| 5,682,522 | HUANG et al. |
| 5,706,482 | MATSUSHIMA et al. |

5,740,383 NALLY et al.
5,781,927 WU et al.
5,903,283 SELWAN et al.
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entitled "Graphics Processing System With Enhanced Memory Controller":

5,408,650 ARSENAULT
5,553,228 ERB et al.
5,659,715 WU et al.
5,767,856 PETERSON et al.
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entitled "Low Cost Graphics System With Stitching Hardware Support For
Skeletal Animation":

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5,475,803 Stearns et al
5,579,456 Cosman, Michael A.
5,748,199 Palm
5,850,229 Edelsbrunner et al.
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5,255,353 Itoh
5,377,313 Scheibl
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| 4,768,148 | Keeley et al. |
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| 4,829,452 | Kang et al. |
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| 5,822,516 | Krech, Jr. |
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